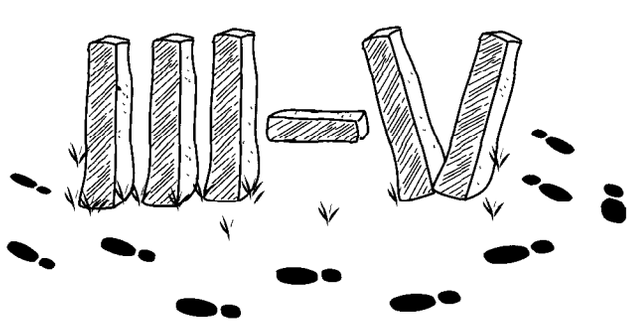


AROUND III-Vs

Clearly industry is fretting about exchange rates, as this offering indicates: The government of Canada is now prepared to help the United States in its war against terrorism. They have committed 6 battleships, 12,000 armed troops, and five squadrons of F-18 fighter jets. However, with the exchange rate, that works out to a canoe, two Mounties, and a flying squirrel.

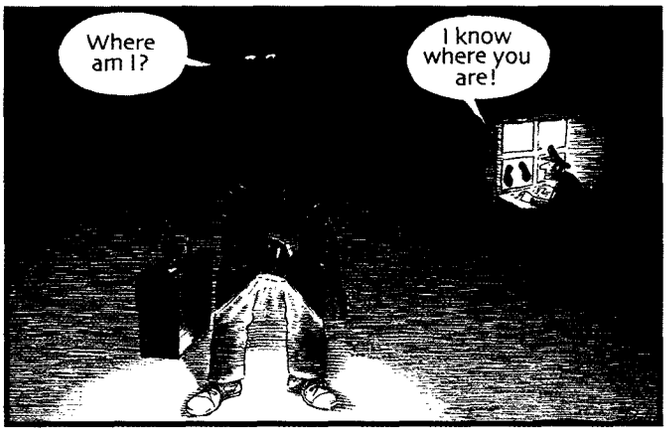
LEDs for food

Space websites are truly amazing places for pictures. No gardener should have missed the non-gravity air bubble, in a drop of water balanced on a leaf at NASA's site. The ubiquitous LED can be found here too. For space, gardening will be a matter of survival. Plants provide food, make air breathable and water drinkable. But a 'greenhouse' in space, needs an efficient light source. The picture shows wheat, under energy saving LEDs which only release light in frequencies needed for photosynthesis.

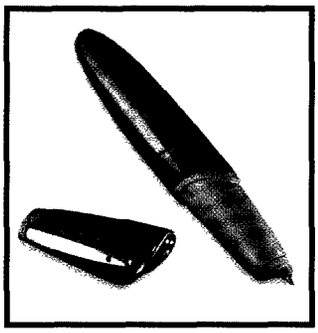
For fabrics

LEDs lead in every imaginable gizmo and odd consumer device. Last month *Around III Vs* looked at LEDs in textiles. Now Infineon has a new slant with carpets and textiles. Its research team presents a fault-tolerant, self-organising embedded microcontroller network, which, coupled with sensors and LEDs, can be integrated into industrial or commercial textiles. The 'smart' carpet can detect motion or fire. The denser the sensor elements are arranged, the more precise the measurements. Integrated LEDs support use of the high-tech carpet as a control system can be used in buildings to mark walking routes and control visitor flow or mark emergency escape routes. Chips communicate via a self-learning, self-organising network. Any faulty element in the net causes the chips to automatically search for new ways to maintain communications.

"To use these textiles in practice, you only need a power and data connection," says Dr. Werner Weber, senior director of Emerging Technologies at Infineon.



And for the written word?



One of the neater, everyday LED applications is an LED pen. But for geeks, the hot item is Sweden's CT Technologies C Pen. This has an embedded optical sensor, capturing handwritten images against a paper embedded grid. Storing up to 40 pages in memory, information is transferred into PC or cellphone by syncing the pen into USB cradle. Licensee, Logitech's 'IO' solution offers total mobility. Forget portable, all that is needed is pen and note book. Retail price $199.95 or €249.

What *Around III Vs* is waiting to see , is which of CTT licensees will try to turn this already camera carrying, digital memory pen, into the Swiss Army pen, by adding an LED for writing in the dark.

The other real problem is going to be the agony of the lost or mislaid pen - perhaps it needs an embedded vocal responder too?

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Appointments

Michael Cich has research funds thanks to a Noyce Microelectronics Fellowship from the Intel Foundation. His work on insulated material will be critical to high-speed laser applications. "What makes my research unusual," says Cich, "is that it's done on compound semiconductors, rather than standard elemental semiconductor. Until now," he adds "there has been no way to produce regions of insulating material from compound semiconductors."

Kenneth Barry is president of Unaxis Semiconductors, reporting to Asuri Raghavan, executive board member of Unaxis Management. Previously Barry was president of Veeco Instruments Process Equipment Group, responsible for the company's growth and profitability, prior to that with MRC/Sony, latterly as president and CEO.

Accent's new CTO, Steve Hummel.

Accent Optical Technologies appoints Steve Hummel as CTO, Compound Semiconductors. Hummel will head development of process control equipment for GaAs, InP and GaN materials. Previously he was director of engineering at Nova Crystals.